COMMELINA UNDULATA

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Commelina undulata R. Br., was first described by Robert Brown in 1810 (*Prodr.* 270) from the material collected by him on an island near Carpentaria, North Australia. Subsequently while revising the family Commelinaceae, C. B. Clarke (DC. *Mon. Phan.* 3, 1881) described a new species from India, *Commelina kurzii* together with a new variety and considered that a variety, *setosa* of *C. undulata* R. Br. grows in Peninsular India. Strangely enough, *C. striata* Edgew. whose type material is rather a poor specimen, was considered by Clarke as distinct from *C. kurzii* but similar to *C. paludosa* Bl. (= *C. obliqua* Buch. Ham.) and he treated it as *C. obliqua* var. *mathewii*. Besides these taxa, two more species from Africa, *C. livingstonii* and *C. sphaerosperma* were also described by Clarke as distinct.

While working on the Indian Commelinaceae, the author has been studying for the last seven years *C. kurzii*, a highly polymorphic species distributed extensively in different climatic zones in India and Ceylon and also Malesia with two distinct sets of chromosome numbers $n = 45$ and 60 as worked out from different populations from India (Rolla Rao & Kammathy in *Jour. Bomb. Nat. Hist. Soc.* 59: 61: 1962). While correlating these studies on *C. kurzii* with reference to *C. undulata* from North Australia and the adjoining areas and a few species from Africa, the type material of such species were studied at the British Museum and Kew along with specimens from Fitzroy Crossing, Western Australia, a place about 1000 km south-west from the type locality of *C. undulata*, obtained through the kind co-operation of Mr. R. D. Royce (Royce 6951). These plants growing luxuriantly on the banks of the Fitzroy river among grasses, are identical with the type material of *C. undulata* and to the wide range of Indian material of *C. kurzii* with capsule having a warty indehiscent cell. It is clear that all the taxa noted above are similar to *C. kurzii* C. B. Cl. of India. Further, the pollen grains of the specimen *Royce* 6951 are identical to those of *C. kurzii* from India. Attempts are being made to make out the chromosome number also of this taxon. It is suggested that the chromosome numbers of the two African species noted above are also worth investigating.

In view of the evidence so far gathered, it is apparent that all the species noted above are synonymous to *C. undulata* R. Br., which now presents distinct sets of stable characters within the range of variation, extending from North Australia to Africa through Malesia and Philippines, Ceylon and India.

Considerable confusion has arisen in the treatment of these species by Clarke due to the importance given to the number of locules of the capsule in the classification of the genus *Commelina*. This locular character, two or three locules in each capsule, has of late been found to be very variable and appears to be associated with the position of flower in the cyme, the first, second or the third flower. More details on this subject together with the enumeration of specimens examined will be published elsewhere.

Commelina undulata R. Br., Prodr. 270 (1810); C. B. Clarke in DC. Mon. Phan., 3: 179 (1881) excl. var. *setosa.*

Syn.: *C. striata* Edgew. in Trans. Linn. Soc. 20: 89 (1846).
C. obliqua Buch. Ham. var. *mathewii* C. B. Cl. in DC. Mon. Phan. 3: 178 (1881).
C. kurzii C. B. Cl. in Journ. Linn. Soc. 11: 444 (1871) et in DC. Mon. Phan. 3: 185 (1881) incl. var.
C. livingstonii C. B. Cl. in DC. Mon. Phan. 3: 109 (1881).
C. sphaerosperma C. B. Cl. in Dyer, Fl. Trop. Afr. 8: 58 (1901).
C. paludosa Bl. var. *mathewii* (C. B. Cl.) Rolla Rao & Kammathy in Bull. Bot. Surv. India, 3: 168 (1961).

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